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WATER AND SANITATION COMMENTS FOR A PROPOSED DEVELOPMENT OF ERF 511 ALONG BLOMHOF AVENUE WETTON: CAPE TOWN

BACKGROUND

The proposed development makes provision for 20 apartments and a public open space of 382m². the proposed residential apartments are categorised as low-rise multiple dwelling unit buildings (Residential zones (i) and (ii)). The Public Open Space is categorised as a Category 13 area.

Table 1.1: Estimated water and sewer demands

Land use Type	Water Demand		Sewer Demand	
	Total AADD (kl/d)	Peak Flow (l/s)	Total ADWF (kl/d)	Peak Flow (Dry weather) (l/s)
Residential apartment (20 Apartments)	16	3	16	0.53
Public Open Space	0.57	0.11	-	-
Total AADD	16.57	3.11	16	0.53

WATER RETICULATION

The site is situated within Ottery pressure management system. Under drought conditions the zone is placed under extreme pressure management with as low as 1.5 bar at critical points in the network.

Water network in the vicinity of the proposed development has diameter of 75's and 50's, appears to be there for long. The 75 mm water supply in Doig Rd has a velocity above 1.1m/s and not recommended for a connection

The 50 mm Ø water pipe in Bloemhof avenue can be used as connection point to the development. The 50 mm Ø water pipe mentioned has a velocity of 0.35 m/s with peak and static demand head of 41.2 m and 93.4 m respectively.

It should be noted that the city minimum supply for a hydrant connection is a 75mm main.

The 110mm main in old Strandfontein Road would be a better option to supply the development.

The developer is expected to incorporate water saving measures in the development.

The water master plan calls for a 160 mm Ø Network reinforcement link pipe to boost pressure in Wetton – see screenshot below.



SEWER RETICULATION

The proposed development falls in the catchment of Cape Flats WWTP. The closest sewer line is the 150 mm which runs at Sheffield close and connects to 1200 mm Bulk Sewer on the eastern side of the development which then gravitates to Cape Flats. Should a new link service to the bulk sewer be preferred, the connection detail and efforts underway to rehabilitate the sewer will need engagement with the regional operational staff.

There is enough relative spare capacity down stream of the development to the Treatment Works to accommodate the proposed sewer flow generated from the development.

The bulk sewer suffers from high levels of siltation that will undergo rehabilitation in various section over the next 3 years that may requires over pumping and transfers to the adjacent second bulk sewer. Disruptions and construction activity in the vicinity can be expected over this period.

WASTEWATER TREATMENT

The proposed development falls in the catchment of Cape Flats WWTP. There is sufficient capacity to accommodate the proposed sewer flow generated as a results of the development.

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CONCLUSION

There is sufficient capacity within the existing water and sewer network to accommodate the proposed development.

CONDITIONS

The development can proceed if the following conditions are met:

1. Development contributions may be payable as per the DC policy.
2. That the applicant at his cost provides all services and link services required to the satisfaction of the council prior to occupation.
3. That no structure is constructed over the municipal service.
4. The developer provides evidence of water saving measures incorporated into the development.

ADDITIONAL TECHNICAL REQUIREMENTS

5. Water and Sanitation municipal service designs to be designed according to Departmental Service Standards and be approved prior to construction.
6. Application must be made for any new water metered connections to the Reticulation Regional Operational Manager
7. The water and sewer capacities allocated according to this document, if not taken up, shall not be reserved beyond the lesser of 5 years or the approved development period.

General/ Disclaimer

Information provided is based on best available data. The flows and pressures provided in this comment are theoretical and not measured.

Yours Faithfully

2019/08/30

X 

Signed by: Shamile Manie

On behalf of

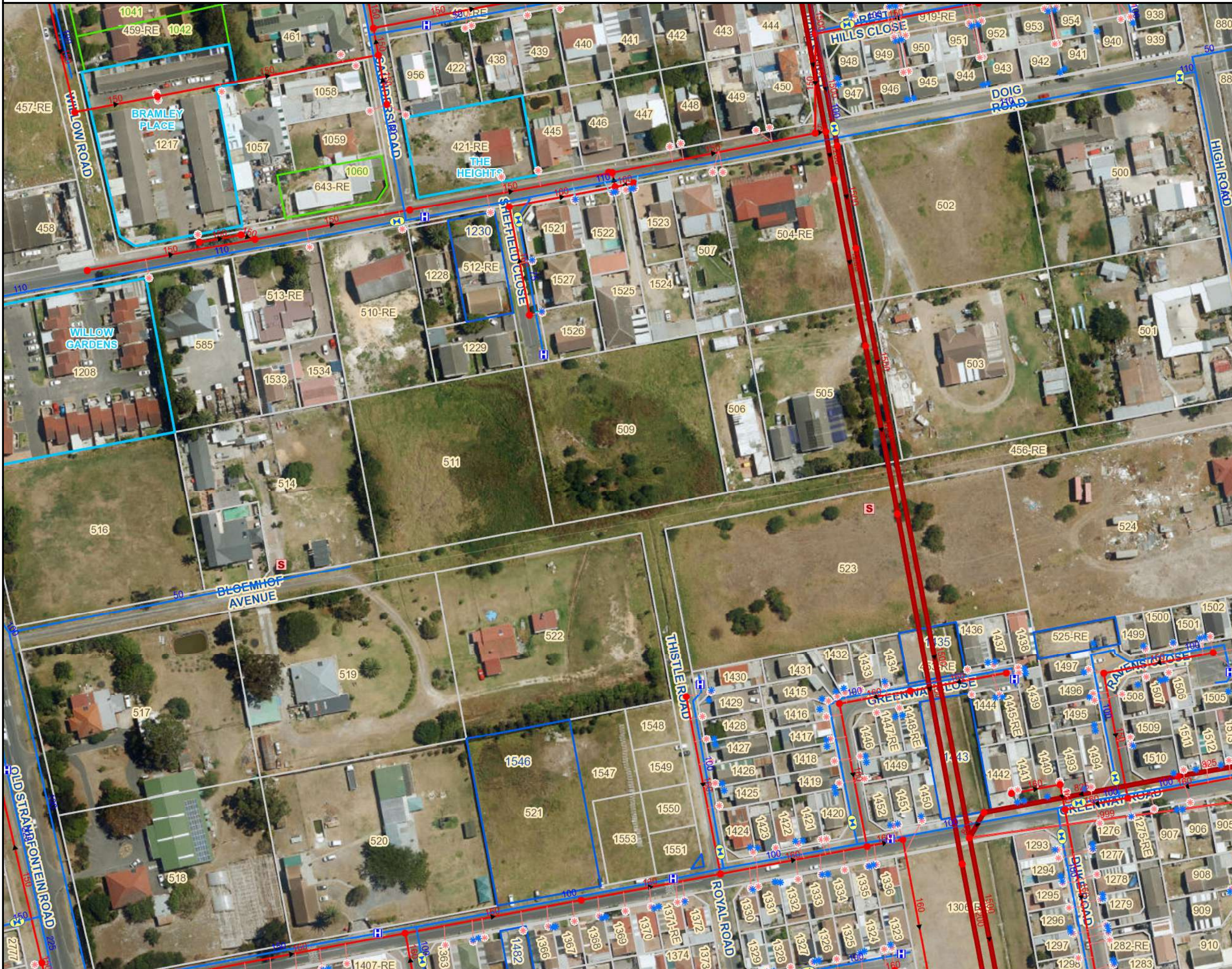
Michael John Webster

DIRECTOR: WATER & SANITATION DEPARTMENT

Erf 511 Wetton



Generated by: **CityMap Viewer**
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Compiled by: S Manie
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LEGEND

- | | |
|-----------------------------|------------------------------|
| Water Network | Sewer Network |
| Hydrant | Manhole |
| Water Treatment Works | Pump Station |
| Booster Connection | Rodding Eye |
| Pump Station | Connection Point |
| Reservoir | Bulk (Complexes) |
| Valves | Standard |
| Air | Connection Line |
| Divisional (DV) | Rising Main |
| Other | Sewer Main |
| Isolation | Redundant Sewer Main |
| Pressure Reducing (PRV) | Treatment Plants |
| Scour | WWTW |
| Connection Point | Sea Outfall |
| Bulk Revenue (Complexes) | Oxidation Pond |
| Bulk Zone | WW Facility |
| Irrigation | Stormwater |
| Standard | Stormwater Ponds |
| Leading | Junctions |
| Bulk Water | Manhole |
| Rising Main | Manhole Catchpit Combination |
| Reticulation / Gravity Main | Catchpit |
| Redundant | Junction Box |
| Pressurized Main | Pipe |
| Non-Potable Lines | Culvert |
| TE Line | SubSurface Drain |
| TE Line Unverified | Open Watercourses |
| | Canal Lined |
| | Channel Open |
| | Canal Composite |

Services: Connected to SDE

1:1 431 (A3)
Transverse Mercator Projection, Central Meridian 19° East, WGS84 Ellipsoid using the Hartbeeshoek94 Datum

Please Note:
- Every effort has been made to ensure the accuracy of information in this map at the time of publication.
- The spatial data portrayed in this map is as current, accurate and complete as provided by the various line departments responsible for the maintenance of these datasets.
- The City of Cape Town accepts no responsibility for and will not be liable for, any errors or omissions contained herein.